JP-H08-295844A

[Claims]

[Claim 1]

A coating composition, comprising (a) an aminoalkylalkoxysilane compound represented by a following general formula [I]:

$$Y-(CH_2)_m-\overset{\overset{Y^1_n}{|}}{Si}-(OR)_{3-n} \quad \cdots \quad [I]$$

wherein Y is an organic group having an amino group, Y^1 is a hydrocarbon group, R is an alkyl group having 1 to 5 carbons, m is an integer from 1 to 5, and n is an integer from 0 to 2,

(b) a metal oxide sol in an amount of 0.05 to 0.7 mol relative to 1 mol of the aminoalkylalkoxysilane compound,

(c) water, (d) an organic solvent, (e) an acid, and (f) a functional microparticle,

wherein pH of the coating composition is 6.5 to 8.0.

[Claim 2]

The coating compound according to claim 1, wherein the metal oxide sol is one selected from the group consisting of silica sol, alumina sol, zirconia sol, and titania sol.

[Claim 3]

The coating compound according to claim 1 or 2, wherein the functional particle is a fluoropolymer microperticle.

[Claim 4]

A method for producing a laminate, comprising applying the coating composition according to claim 3 onto a substrate, and curing the coating composition.

[0042]

This coating composition was applied onto a plate glass (float glass, manufactured by Central Glass Co., Ltd.) by a flow coating method, and cured by a heat treatment at 280°C for 1 hr and at 350°C for 20 min so that a laminate wherein a coating having 0.5 μm thickness was formed on the plate glass was obtained. Dispersion stability of the above coating composition and various properties of the obtained laminate were evaluated according to the above-mentioned evaluation methods, and the results are shown in Table 1.